

# How can I create a Pandas DataFrame from a string in Python?

Authored by  
**stats writer**

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## RECOMMENDED CITATION

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Creating a Pandas DataFrame from a string in Python involves using the pandas library to convert the string into a tabular data structure. This can be achieved by first importing the pandas library, then using the `pandas.DataFrame()` function to convert the string into a DataFrame. The string must be formatted in a specific way, with each row separated by a new line and each column separated by a comma. This process allows for efficient data manipulation and analysis, making it a useful tool for working with large datasets in Python.

## Create Pandas DataFrame from a String

You can use the following basic syntax to create a pandas DataFrame from a string:

```
import pandas as pd
import io

df = pd.read_csv(io.StringIO(string_data), sep=",")
```

This particular syntax creates a pandas DataFrame using the values contained in the string called `string_data`.

The following examples show how to use this syntax in practice.

### Example 1: Create DataFrame from String with Comma Separators

The following code shows how to create a pandas DataFrame from a string in which the values in the

**string are separated by commas:**

```
import pandas as pd
```

```
import io
```

```
#define string
```

```
string_data="""points, assists, rebounds
```

```
5, 15, 22
```

```
7, 12, 9
```

```
4, 3, 18
```

```
2, 5, 10
```

```
3, 11, 5
```

```
"""
```

```
#create pandas DataFrame from string
```

```
df = pd.read_csv(io.StringIO(string_data), sep=",")
```

```
#view DataFrame
```

```
print(df)
```

```
points assists rebounds
```

```
0 5 15 22
```

```
1 7 12 9
```

```
2 4 3 18
```

```
3 2 5 10
```

## 4 3 11 5

The result is a pandas DataFrame with five rows and three columns.

### Example 2: Create DataFrame from String with Semicolon Separators

The following code shows how to create a pandas DataFrame from a string in which the values in the string are separated by semicolons:

```
import pandas as pd
import io

#define string
string_data="""points;assists;rebounds
5;15;22
7;12;9
4;3;18
2;5;10
3;11;5
"""

#create pandas DataFrame from string
```

```
df = pd.read_csv(io.StringIO(string_data), sep=";")
```

```
#view DataFrame
```

```
print(df)
```

```
points assists rebounds
```

```
0 5 15 22
```

```
1 7 12 9
```

```
2 4 3 18
```

```
3 2 5 10
```

```
4 3 11 5
```

The result is a pandas DataFrame with five rows and three columns.

If you have a string with a different separator, simply use the `sep` argument within the `read_csv()` function to specify the separator.

The following tutorials explain how to perform other common tasks in pandas: